

LIGHT EMITTING DEVICES WITH COMPACT ACTIVE REGIONS

ABSTRACT OF THE DISCLOSURE

[0056] A light emitting device includes a region of first conductivity type, a region of second conductivity type, an active region, and an electrode. The active region is disposed between the region of first conductivity type and the region of second conductivity type and the region of second conductivity type is disposed between the active region and the electrode. The active region has a total thickness less than or equal to about $0.25\lambda_n$ and has a portion located between about $0.6\lambda_n$ and $0.75\lambda_n$ from the electrode, where λ_n is the wavelength of light emitted by the active region in the region of second conductivity type. In some embodiments, the active region includes a plurality of clusters, with a portion of a first cluster located between about $0.6\lambda_n$ and $0.75\lambda_n$ from the electrode and a portion of a second cluster located between about $1.2\lambda_n$ and $1.35\lambda_n$ from the electrode.